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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,301	11/24/2003	Douglas J. Dellinger	2750-0001.10	7685

23980 7590 05/23/2005

REED INTELLECTUAL PROPERTY LAW GROUP  
1400 PAGE MILL ROAD  
PALO ALTO, CA 94304-1124

EXAMINER
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MCINTOSH III, TRAVISS C

ART UNIT	PAPER NUMBER
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1623

DATE MAILED: 05/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/721,301

Applicant(s)

DELLINGER, DOUGLAS J.

Examiner

Traviss C. McIntosh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

8-6-05

### **DETAILED ACTION**

The Amendment filed March 10, 2005 has been received, entered into the record, and carefully considered. The following information provided in the amendment affects the instant application by:

Claims 1-2, 14-16, and 24 have been amended.

Remarks drawn to rejections of Office Action mailed September 10, 2004 include:

Claim objections: which have been overcome by applicant's amendments and have been withdrawn.

112 2<sup>nd</sup> paragraph rejections: which have been maintained for reasons of record.

An action on the merits of claims 1-26 is contained herein below. The text of those sections of Title 35, US Code which are not included in this action can be found in a prior Office action.

#### ***Claim Rejections - 35 USC § 112***

The rejection of claims 1-26 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, is maintained for reasons of record.

All claims that include the limitation of "substituted", as in "substituted hydrocarbyl" and "substituted heteroatoms-containing hydrocarbyl" as in claims 1, 2, 15, and 16 for example, are indefinite. In the absence of the identity of moieties which are intended to provide substitution and thus modify the instantly claimed chemical core, the identity of the "substituted" moieties applicant intends as the invention would be difficult to ascertain. In the absence of said

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moieties, the claims containing the term “substituted” are not described sufficiently to distinctly point out that which applicant intends as the invention. Applicants should include the moieties which are intended to effectuate substitution into the claims wherein said moieties are supported in the specification as originally filed.

Applicants argue that substituted is more than adequately defined in applicant's specification, for example paragraph 40 defines substituted alkylenes, paragraph 39 defines substituted alkyl groups, paragraph 41 defines substituted alkenyl, paragraph 42 defines substituted alkynyl, paragraph 44 defines substituted amino, paragraph 45 defines substituted aryl, and paragraph 46 defines substituted arylene. However, it is noted that applicants defines: substituted alkylene in paragraph 40 as an “alkylene substituted with one or more substituent groups”; substituted alkyl in paragraph 34 as an “alkyl substituted with one or more substituent groups”; substituted alkenyl in paragraph 41 as an “alkenyl substituted with one or more substituent groups”; substituted alkenyl in paragraph 42 as an “alkenyl substituted with one or more substituent groups”; substituted amino in paragraph 44 as amino groups which are substituted with groups which are optionally substituted with undisclosed moieties; substituted aryl in paragraph 45 as an “aryl substituted with one or more substituent groups”; and substituted arylene in paragraph 46 as an “arylene substituted with one or more substituent groups”. It is noted that these are not seen to be clear and concise definitions which would allow the skilled artisan to determine the metes and bounds of the claims. Applicants do not state what moieties are capable of being substituted in the various functional groups, and where they would be substituted. If applicants are relying on the specification for a definition, the specification must clearly set forth the definition explicitly and with reasonably clarity, deliberateness, and

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precision. See *Teleflex Inc. v. Ficosa North America Corp.*, 63 USPQ2d 1374, 1381 (Fed. Cir. 2002); *Rexnord Corp. v. Laitram Corp.*, 60 USPQ2d 1851, 1854 (Fed. Cir. 2001); and MPEP 2111.01. Applicants also argue that “substituted” has been used in many US patents claims without further reciting the specific substituted moieties that they intend in their claims, however, the examiner notes that there is ample case law which states that states that allowance of similar claims in another case is immaterial. See *In re Giolito*, 530 F.2d 397, 188 USPQ 645 (CCPA 1976).

All claims which depend from an indefinite claim are also indefinite. *Ex parte Cordova*, 10 U.S.P.Q. 2d 1949, 1952 (P.T.O. Bd. App. 1989).

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-26 are rejected under 35 U.S.C. 102(a) as being anticipated by Guzaev et al. (US 6,121,437).

Claims 1-26 of the instant application are drawn to various modified nucleotides as set forth in the claims.

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Guzaev et al. disclose various compounds which meet the structural limitations of the compounds as claimed in the instant application. See tables and examples which disclose compounds with registry numbers 291299-97-3P, 291299-98-4P, 291300-40-8P, 291300-43-1P, 291300-46-4P, and 291300-48-6P, all of which meet the structural limitations as set forth in the instant application.

Claims 1-26 are rejected under 35 U.S.C. 102(a) as being anticipated by Guzaev et al. ("A Novel Phosphate Protection for Oligonucleotide Synthesis: The 2-[(1-naphthyl)carbamoyloxy]ethyl (NCE) Group" Tetrahedron Letters, vol. 41, 2000, pp. 5623-5626).

Claims 1-26 of the instant application are drawn to various modified nucleotides as set forth in the claims.

Guzaev et al. disclose various compounds which meet the structural limitations of the compounds as claimed in the instant application. See compounds of scheme 1 which disclose compounds with registry numbers 291300-46-4P, 291300-48-6P, 295326-86-2P, and 295326-87-3P, all of which meet the structural limitations as set forth in the instant application.

Claims 1-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Seliger et al. (US 5,700,919).

Claims 1-26 of the instant application are drawn to various modified nucleotides as set forth in the claims.

Seliger et al. disclose a compound in example 4 with a CAS registry number of 134645-30-0P, which meets the limitations as set forth in the instant applications claims.

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*Conclusion*

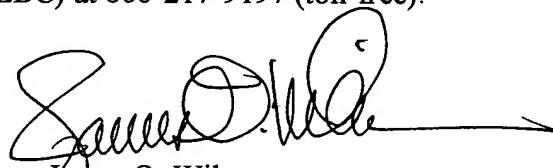
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Traviss C. McIntosh whose telephone number is 571-272-0657.

The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Traviss C. McIntosh III  
May 16, 2005



James O. Wilson  
Supervisory Patent Examiner  
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